

## CLAIMS

1. A method of authenticating user identity, the method comprising:

grasping a stylus as a transaction request is initiated, the stylus enabling a written image to be generated upon a flat surface;

capturing a first sensed fingerprint image of a first finger as the first finger is positioned proximate to a first fingerprint image sensor, the first fingerprint image sensor being positioned in such a manner that the first sensed fingerprint image is captured as the stylus is touched;

comparing the first sensed fingerprint image with a first reference fingerprint image, the first reference fingerprint image being captured during a user registration, fingerprint image comparison being performed within a matching processor; and

approving the transaction request whenever the matching processor determines that based at least partially upon fingerprint comparison data of the first sensed fingerprint image and the first reference fingerprint image, identity is confirmed, confirmation determination being independent of any image generated upon the flat surface.

2. The method of Claim 1, further capturing a second sensed fingerprint image of a second finger as the second finger is positioned proximate to a second fingerprint image sensor, the second fingerprint image sensor being positioned in such a manner that the second sensed fingerprint image is captured as the stylus is touched, and approving the transaction request whenever the matching processor decides that based at least partially upon fingerprint comparison data of the second sensed fingerprint image and the second reference fingerprint image, identity is confirmed.

3. The method of Claim 1, further capturing a first sensed metric property of stylus user as the stylus is used to write upon the flat surface, and approving the transaction request whenever the matching processor decides that based at least partially upon comparison data of the first sensed metric property with reference data, identity is confirmed.

4. The method of Claim 1, wherein the transaction is a financial transaction and upon completion of the transaction a prepaid user account is debited.

5. The method of Claim 1, wherein the transaction is a financial transaction and upon completion of the transaction a credit user account associated is debited.

6. The method of Claim 1, wherein the transaction involves access to data in a guarded network and user identity is authenticated prior to enabling access to additional data in the guarded network.

7. The method of Claim 1, wherein the transaction involves entry of data into a guarded network and user identity is authenticated prior to enabling entry of additional data into the guarded network.

8. A method of authenticating user identity, the method comprising:

grasping a stylus as a transaction request is initiated, the stylus enabling a written image to be generated upon a flat surface;

capturing a first fingerprint image of a first finger as the first finger is positioned proximate to a first fingerprint sensor, the first fingerprint image sensor being positioned in such a manner that the first fingerprint image is captured as the

stylus is touched, the first fingerprint image sensor including a semiconductor chip, fingerprint image capture being by nonoptical sensor;

comparing the first sensed fingerprint image with a first reference fingerprint image, the first reference fingerprint image being captured during a user registration, fingerprint image comparison being performed within a matching processor; and

blocking the transaction in the absence of a match of the first sensed fingerprint image and the first reference fingerprint image within the matching processor.

9. A method of authenticating user identity, the method comprising:

grasping a stylus as a transaction request is initiated, the stylus enabling a written image to be generated upon a flat surface, the stylus having a cable attachment to a writing surface, the cable attachment enabling electrical connection between the stylus and a cardreader, the cable attachment enabling wire transmission of data captured by use of the stylus to a matching processor;

capturing a first sensed fingerprint image of a first finger as the first finger is positioned proximate to a first fingerprint image sensor, the first fingerprint image sensor being positioned in such a manner that the first sensed fingerprint image is captured as the stylus is touched;

scanning a user card with the cardreader, the user card including data relative to the first reference fingerprint image;

comparing the first sensed fingerprint image with a first reference fingerprint image, the first reference fingerprint being captured during a user registration,

fingerprint image comparison being performed within the matching processor; and

approving the transaction request whenever the matching processor determines that based at least partially upon fingerprint comparison data of the first sensed fingerprint image and the first reference fingerprint image, identity is confirmed.

10. The method of Claim 9, further capturing a second sensed fingerprint image of a second finger as the second finger is positioned proximate to a second fingerprint image sensor, the second fingerprint image sensor being positioned in such a manner that the second sensed fingerprint image is captured as the stylus is touched, and approving the transaction request whenever the matching processor decides that based at least partially upon fingerprint comparison data of the second sensed fingerprint image and the second reference fingerprint image, identity is confirmed.

11. The method of Claim 9, further capturing a first sensed metric property of stylus user as the stylus is used to write upon the flat surface, and approving the transaction request whenever the matching processor decides that based at least partially upon comparison data of the first sensed metric property with reference data, identity is confirmed.

12. A method of authenticating user identity, the method comprising:

grasping a stylus as a transaction request is initiated, the stylus enabling a written image to be generated upon a flat surface, the stylus being wireless and portable;

capturing a first sensed fingerprint image of a first finger as the first finger is positioned proximate to a first fingerprint sensor, the first fingerprint image sensor being positioned in such a manner that the first sensed fingerprint image is captured as the stylus is touched;

comparing the first sensed fingerprint image with a first reference fingerprint image, the first reference fingerprint image being captured during a user registration, the first reference fingerprint image being stored within the stylus, fingerprint image comparison being performed within the matching processor, the matching processor being disposed within the stylus; and

approving the transaction request whenever the matching processor determines that based at least partially upon fingerprint comparison data of the first sensed fingerprint image and the first reference fingerprint image, identity is confirmed.

13. The method of Claim 12, wherein the transaction involves access to data in a guarded network and user identity is authenticated prior to enabling access to additional data in the guarded network.

14. The method of Claim 12, wherein the transaction involves entry of data into a guarded network and user identity is authenticated prior to enabling entry of additional data into the guarded network.

15. The method of Claim 12, wherein the stylus is pre-registered for use with a plurality of pen-based computers.

16. The method of Claim 12, wherein stylus position relative to any surface is used for purpose of text capture purposes and user identity is useful in deciphering written text.

17. A method of authenticating user identity, the method comprising:

grasping a stylus as a transaction request is initiated, the stylus enabling a written image to be generated upon a flat surface, the stylus having a cable attachment

to a writing surface, the cable attachment enabling electrical connection between the stylus and a pen-based computer, the cable attachment enabling wire transmission of data captured in the stylus to the pen-based computer;

capturing a first sensed fingerprint image of a first finger as the first finger is positioned proximate to a first fingerprint image sensor, the first fingerprint image sensor being positioned in such a manner that the sensed fingerprint image is captured as the stylus is touched;

comparing the first sensed fingerprint image with a first reference fingerprint image, the first reference fingerprint image being captured during a user registration, the first reference fingerprint image being stored in the pen-based computer, fingerprint image comparison being performed within the pen-based computer; and

approving the transaction request whenever the matching processor determines that based at least partially upon fingerprint comparison data of the first sensed fingerprint image and the first reference fingerprint image, identity is confirmed, confirmation determination being independent of any image generated upon the flat surface.

18. The method of Claim 17, wherein the transaction involves access to data in a guarded network and user identity is authenticated prior to enabling access to additional data in the guarded network.

19. The method of Claim 17, wherein the transaction involves entry of data into a guarded network and user identity is authenticated prior to enabling entry of additional data into the guarded network.

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